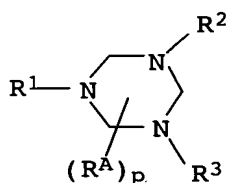


Translation of amended sheet annexed to the IPER

7

We claim:

1. A process for the oligomerization of α -olefins having at least three carbon atoms, in which the olefin is brought into contact with a catalyst system obtainable from
 - a) at least one chromium source,
 - b) at least one ligand of the formula I



(I)

- where R^1 to R^3 are each, independently of one another, C_4 - C_{30} -alkyl which has no α , β or γ branching,

R^A is an organic group having from 1 to 30 carbon atoms which is bound via a silicon atom or a carbon atom, and

- p is from 0 to 6, and

- c) at least one activator comprising a boron compound, with the molar ratio of B:Cr being at least 5.
2. A process as claimed in claim 1, wherein the activator further comprises an alkylaluminum compound.
3. A process as claimed in claim 2, wherein the activator comprises a trialkylaluminum and an alkylaluminum halide.
4. A process as claimed in any of the preceding claims, wherein 1,3,5-tri- n -dodecyl-1,3,5-triazacyclohexane is used as ligand.
5. A process as claimed in any of the preceding claims, wherein the boron compound has the formula BZ_3 and/or $Cat^+BZ_4^-$, where Z is an electron-withdrawing radical and Cat^+ is a cation.
6. A process as claimed in claim 5, wherein the boron compound is selected from among trispentafluorophenylborane, N,N -dimethylanilinium tetrakis(pentafluorophenyl)borate, tri- n -butylammonium tetrakis(pentafluorophenyl)borate,

Translation of amended sheet annexed to the IPER

8

N,N-dimethylanilinium
tetrakis(3,5-bis(perfluoromethyl)phenyl)borate,
tri-n-butylammonium
tetrakis(3,5-bis(perfluoromethyl)phenyl)borate and tritylium
5 tetrakis(pentafluorophenyl)borate.

7. A process as claimed in any of the preceding claims, wherein
1-butene is used as olefin.

10

15

20

25

30

35

40

45